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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,753	08/08/2001	Hans-Ueli Roeck	33868	2924

116 7590 09/09/2003

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CLEVELAND, OH 44114-1484

EXAMINER

NGUYEN, TUAN DUC

ART UNIT

PAPER NUMBER

2643

DATE MAILED: 09/09/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/924,753

Applicant(s)

ROECK, HANS-UELI

Examiner

Tuan D. Nguyen

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2. Claims 1-3, 5-14 and 16-20 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. patent number 6,359,992 (Preves et al).

Regarding claims 1 and 12, Preves et al discloses a system for implementing the method per claim 1, characterized in that a processing unit (figures 3 and 4) is provided which receives an input signal (column 5 lines 16-17 item 28) and which permits within the processing unit the determination of a threshold value (column 5 lines 25-27) ( $O_{\max}$ ,  $O_{\min}$ ,  $O_{TR}$ ) for the purpose of limiting the output signal, said threshold value ( $O_{\max}$ ,  $O_{\min}$ ,  $O_{TR}$ ) being adjustable as a function of the level of the input signal.

Regarding claims 2, and 13, Preves et al also teaches a mean level (I) can be determined by averaging (column 5 lines 5-15).

Regarding claims 3 and 14, Preves et al further teaches wherein the threshold value ( $O_{TR}$ ) can be adjusted (column 5 lines 33-44) to a point which by a differential amount ( $TR_{max}$ ) is above the mean level ( $I$ ) of the input signal.

Regarding claims 5 and 16, Preves et al further teaches wherein it permits a maximum threshold value ( $O_{max}$ ) to be established (column 4 lines 26-31).

Regarding claims 6 and 17, Preves et al further teaches wherein the maximum threshold value ( $O_{max}$ ) is so selected as to be equal to an upper comfort level of a hearing-impaired person (column 4 lines 40-41).

Regarding claims 7 and 18, Preves et al further teaches wherein it permits a minimum threshold value ( $O_{min}$ ) to be established (column 4 lines 26-31).

Regarding claim 8, Preves et al further teaches characterized in that the minimum threshold value ( $O_{min}$ ) is so selected as to be equal to an output level that results from an input level of about 80 dB (column 4 lines 26-31) and the corresponding amplification at that input level that is produced for a hearing-impaired person.

Regarding claims 9 and 20, Preves et al further teaches wherein the differential amount ( $TR_{max}$ ) is adjusted along a compression ratio for a hearing-impaired person (column 8 lines 24-30).

Regarding claims 10 and 11, Preves et al further teaches the application for operation of a hearing aid by a hearing-impaired person (column 3 lines 7-11).

***Claim Rejections - 35 USC § 103***

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent number 6,359,992 (Preves et al).

Regarding claims 4 and 15, Preves et al do not disclose a specific averaging function.

However, Preves et al discloses the averaging received signal (column 5 lines 5-15). Moreover, the formula for calculating the averaging signal is well known.

Therefore, it would have been obvious to one of ordinary skill in the art at time of the invention was made to use a well known averaging signal function in Preves et al's teaching.

#### *Response to Amendment*

4. Applicant's arguments filed on 07/28/2003 have been fully considered but they are not persuasive. The applicant's argument: Preves does not teach "that a level of the input signal is determined and that the threshold value ( $O_{\max}$ ,  $O_{\min}$ ,  $O_{TR}$ ) is set as a function of the level of the input signal." The examiner respectfully disagrees with the applicant:

Figure 3, the circuit clearly show the threshold value is set as a function of the level of the input signal. For instant, the transfer function of figure 3 is  $Y=AX$  wherein Y is an output signal (item 44), X is the input signal (item 28) and A is the function of the processing circuit that is directly related with Y and X. A includes the threshold value processing (column 5 lines 45-63). Therefore, the circuit inherently has a threshold value, which is related to the input signal and effects to the output signal.

### *Conclusion*

5. **THIS ACTION IS MADE FINAL.** See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

6. Any response to this final action should be mailed to:

**Commissioner of Patents and Trademarks  
Washington, D.C. 20231**

Or faxed to:

**(703) 308-9051**, (for formal communications; please mark "EXPEDITED  
PROCEDURE"), or

**(703) 305-9508**, (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to:

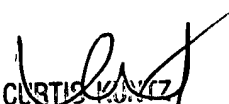
**Receptionist, Sixth Floor,  
Crystal Park II,  
2121 Crystal Drive,  
Arlington, Virginia 22202**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan D. Nguyen whose telephone number is (703) 305-7168. The examiner can normally be reached on M-F 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curt Kuntz can be reached on (703) 305-4708. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

TDN  
9/2/03

  
CURTIS KUNTZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER